

Patent Claims:

1           1. A spinneret for spinning thermoplastics with a  
2 central polymer melt inlet passage, a filter arrangement (2)  
3 comprised of a plurality of filter disks of different filter  
4 fineness which are fixedly bonded together by cold pressing, a  
5 spinneret plate (3) and a housing (1), which closely surrounds and  
6 receives the filter arrangement (2) and the spinneret plate (3)  
7 characterized in that said filter arrangement (2) has no sealing  
8 enclosure and is comprised of a material with a higher thermal  
9 expansion coefficient than that of the material from which the  
10 housing (1) surrounding it is fabricated.

1           2. A spinneret for spinning of thermoplastics having a  
2 central polymer melt inlet passage, a filter arrangement (2)  
3 comprised of one or more filter disks of different filter fineness  
4 and optional type, a spinneret plate (3) and a housing (1)  
5 surrounding and receiving the filter arrangement (2) and the  
6 spinneret plate (3) characterized in that the spinneret plate (3)  
7 is comprised of a material with a higher thermal expansion  
8 coefficient than that of the material from which the housing (1)  
9 surrounding it is fabricated.

10           3. A spinneret for spinning of thermoplastics having a  
11 central polymer inlet passage, a filter arrangement (2) comprised of

12 a plurality of filter disks of different filter fineness which are  
13 fixedly bonded together by cold pressing with one another, and a  
14 spinneret plate (3) and a housing (1) closely surrounding and  
15 receiving the filter arrangement (2) and the spinneret plate,  
16 characterized in that the said filter arrangement (2) has no  
17 sealing enclosure and the filter arrangement (2) and the spinneret  
18 plate (3) are comprised of materials with a higher thermal  
19 expansion coefficient than the material from which the housing (1)  
20 surrounding them is fabricated.

*claim 1*

1 4. The spinneret according to (one of claims 1 to 3)  
2 characterized in that the spinneret plate (3) and/or the filter  
3 arrangement (2) are composed of austenitic steel like for example  
4 Nos. 1.4301, 1.4541, 1.4580 or a material with a similarly high  
5 thermal expansion coefficient and that the housing (1) surrounding  
6 them is fabricated from a material with a lower coefficient of  
7 thermal expansion like, for example No. 1.4057 or a similar  
8 chromium steel or refractory material.

*claim 1*

1 5. The spinneret according to (one of claims 1 to 4)  
2 characterized in that the dimensioning is so selected that the fit  
3 between the outer diameter of the spinneret plate (3) and/or the  
4 filter arrangement (2) on the one hand and the bore receiving it in  
5 the surrounding housing (1) on the other hand provides a slight  
6 play fit at room temperature which is transformed at operating

7 temperatures based upon the different expansions of the parts, into  
8 a self-sealing radial press fit.

1                   6. The spinneret according to *claim 2*,  
2                   characterized in that the spinneret plate (3) is comprised of a  
3                   material with a higher thermal expansion coefficient than the  
4                   material of the housing (1) surrounding it and that the spinneret  
5                   plate (3) has in its lower half additionally a thread provided  
6                   which is directly screwed into the housing (1) whereby the thread  
7                   and the stop of the spinneret plate (3) in the housing (1) are so  
8                   formed that the spinning orifice pattern always has the same  
9                   orientation so that the correct blast on the filaments as they are  
10                  spun is ensured by the screwing of the spinneret plate (3) to its  
11                  stop.

1                   7. The spinneret according to *claim 1*,  
2                   characterized in that the housing (1) has at its lower end a  
3                   projecting collar which has at least three grooves for receiving a  
4                   tool for screwing the spinning system in and out and in that the  
5                   spinneret plate (3) is thereby protected against detrimental  
6                   contact during handling.